Yuma / San Luis Air Toxics Study

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Goals

- Determine the risk of Yuma and San Luis residents to airborne pollutants.

- Determine the emission sources of these pollutants and recommend to authorities and citizens ways to reduce these emissions and/or reduce exposure to them.

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What's Involved?

- Air Toxics Monitoring
- Construction of an Emissions Inventory
- Air Quality Modeling
- Risk Assessment Modeling

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Timing

- Pilot Meteorological Study -- Underway since 2003
- Installation of Two “Supersites” --January 2006
- Air Monitoring for 24 Months -- 2006 through 2007
- Interim Monitoring Report -- 2008

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Western Arizona Sonora Mexico Border Air Quality Study
Dome Valley
Yuma West
CALIFORNIA
BAJA CALIFONIA MEXICO
Yuma Valley
Yuma Mesa
Baja
San Luis
Sonora
ARIZONA
SONORA, MEXICO
Cortez
N
0
2.5
5
10 Miles
Dec 200
N. Carol

Air Monitoring Locations

- Two Supersites
  - Yuma
  - San Luis, Sonora (near the border)
- One Background Site in Baja
- Numerous Proposed Short-Term Sampling Sites for Special Studies

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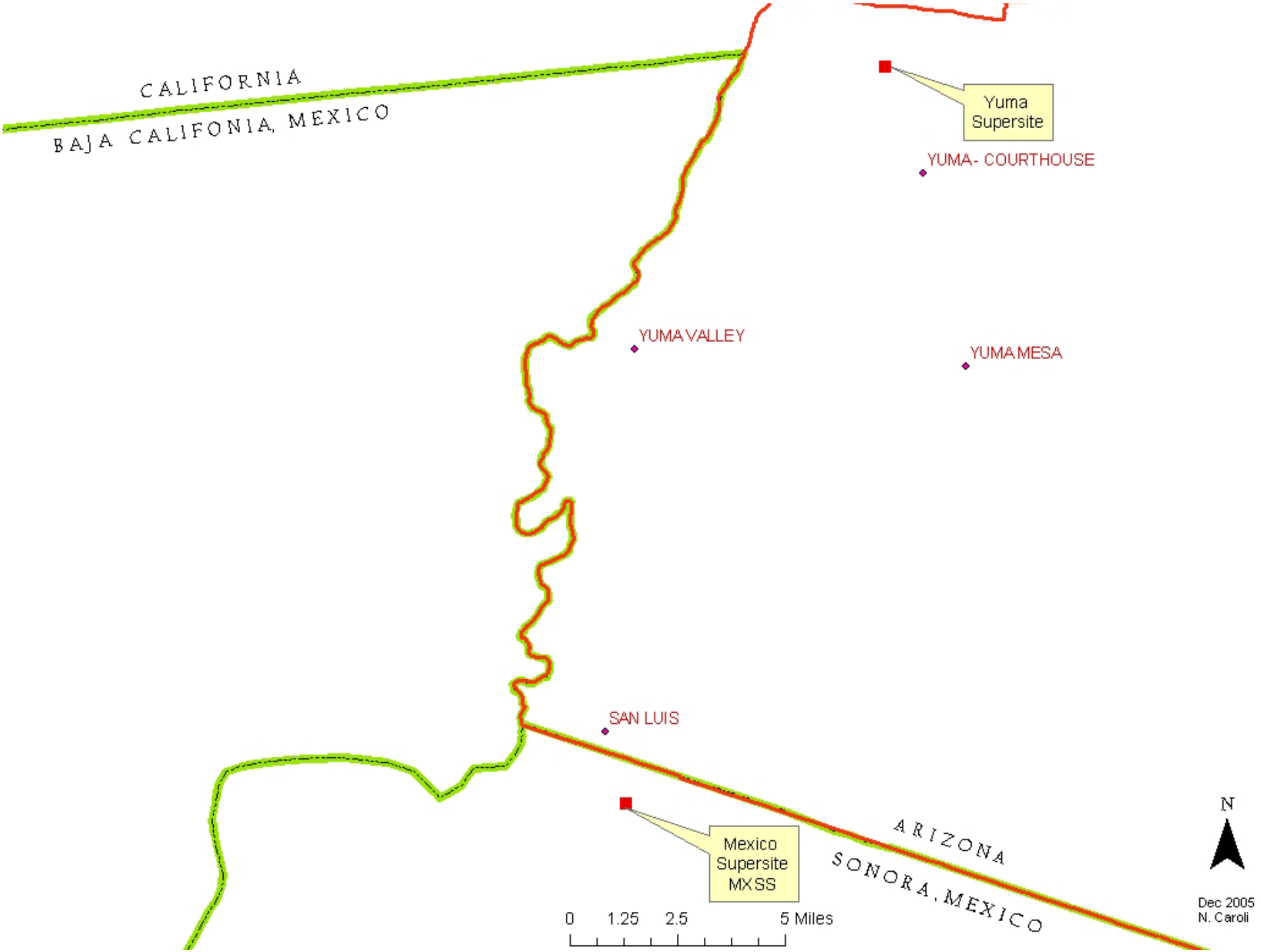
CALIFORNIA
BAJA CALIFONIA, MEXICO
YUMA WEST
Yuma Supersite
YUMA - COURTHOUSE
YUMA VALLEY
YUMA MESA
SAN LUIS
Mexico Supersite MXSS
ARIZONA
SONORA, MEXI
N
Dec 2005


CALIFORNIA
BAJA CALIFONIA, MEXICO
Yuma Supersite
YUMA- COURTHOUSE
YUMA VALLEY
YUMA MESA
SAN LUIS
Mexico Supersite MXSS
ARIZONA
SONORA, MEXICO
0 1.25 2.5 5 Miles
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Pollutants

- Filter-based $PM_{2.5}$, $PM_{2.5\ -10}$, PM_{10}
  - Full Chemical Composition (Metals, Nitrate, Sulfate, Carbon, etc.)
- Continuous PM
- Carbon Monoxide, Sulfur Dioxide, Ozone and Nitrogen Oxides
- Gaseous and Semi-Volatile Air Toxics

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Proposed Special Studies

- Cross-border Transport
- Agricultural Burns
- San Luis Brick Kilns
- Dirt Roads
- Pesticides
- Background (between Yuma & Mexicali)
- Eight Neighborhoods (four on each side)

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Summary

- Two-year, Intensive Air Toxics Monitoring Study
- Goals -- Assess Risk and Better Understand and Reduce Emissions
- Questions?

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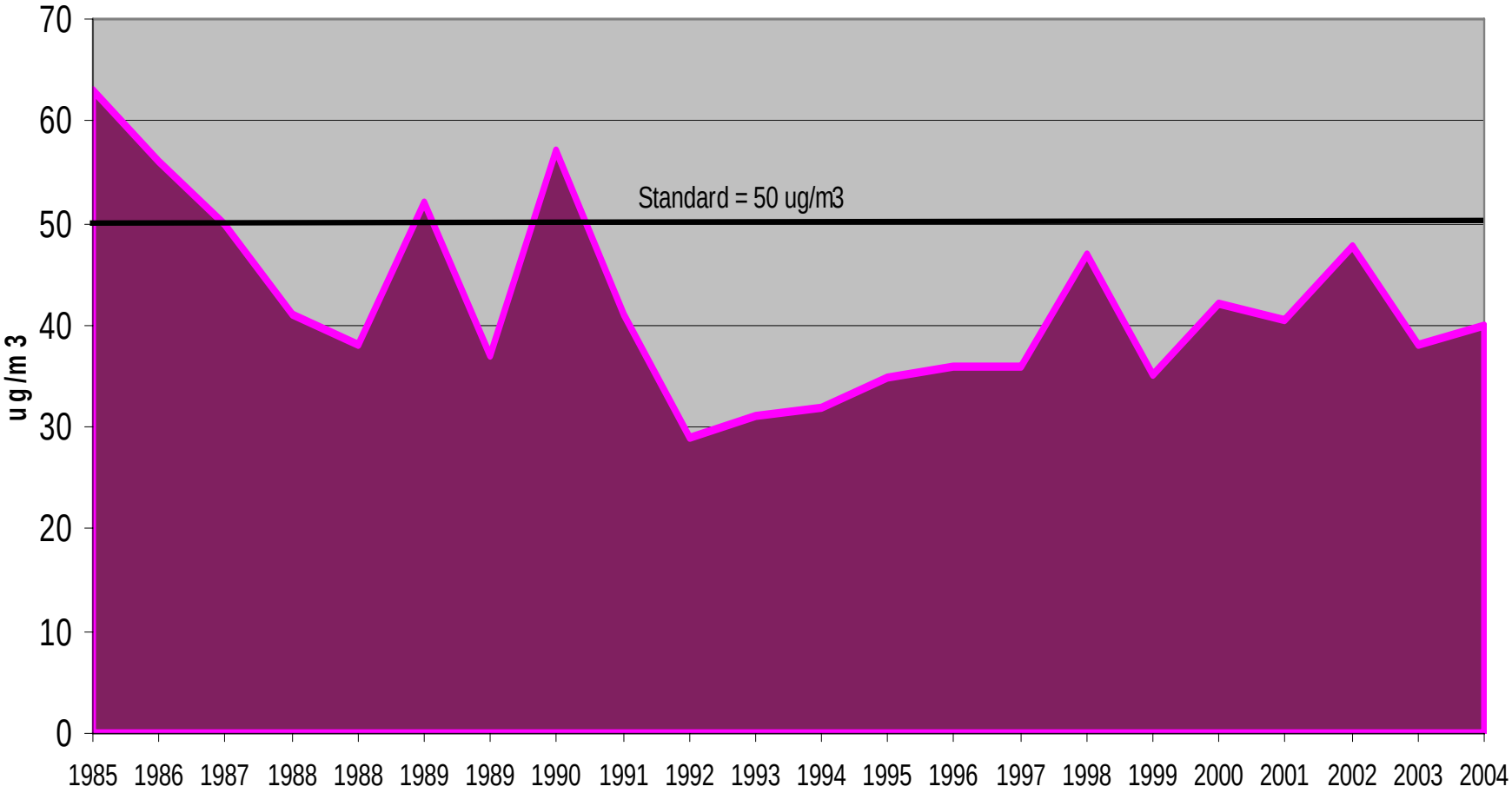
Yuma Annual PM_{10} Concentrations: 1985 - 2004



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